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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,529	12/05/2003	Tomoyuki Funaki	YAMA:060	8293

7590	01/29/2007

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EXAMINER
LEE, JINHEE J

ART UNIT	PAPER NUMBER
2174	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/29/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

	Application No.	Applicant(s)
Office Action Summary	10/728,529	FUNAKI, TOMOYUKI
	Examiner	Art Unit
	Jinhee J. Lee	2174

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-10* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-10* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☒ All   b)☐ Some *   c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>0404</u>.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Priority

1.   Acknowledgment is made of applicant's claim for priority under 35 U.S.C. 119(a)-
(d) based upon an application filed in Japan on 12/5/2002.

Claim Objections

2.   Claims 9 and 10 are objected to because of the following informalities:

Claim 9 line 6, and claim 10 line 4; the phrase "execute:" has an error. Examiner

suggests "execute comprising" instead to avoid indefinite rejection.

Appropriate correction is required.

Claim Rejections - 35 USC § 101

3.   35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of
matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the
conditions and requirements of this title.

4.   Claims 1-10 are rejected under 35 U.S.C. 101 because the claimed invention is

directed to non-statutory subject matter.

Re claim 1-10, claim 1-10 claims a data structure, however, it appears the

limitations of said claim are merely claiming statements defining various items, therefore

said limitations do not appear to be defining any functional interrelations which permits

the computer program's functionality (or data structure's functionality) to be realized.

In view of the above, claims xxx are therefore directed to non-statutory subject

matter.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1-10 are rejected under 35 U.S.C. 102(b) as being anticipated by

Matsumoto (20010023633).

Re claim 1, Matsumoto discloses an apparatus for arranging music score

displaying data for displaying a music score on a given music score display area in one

or more staff tiers, each tier containing one or more measures of variable lengths as

justified for the display area, said apparatus comprising: a music performance

representing data input device which inputs data representing a music performance in a

plurality of measures of music progression (see paragraph 0005 for example); a musical

score notational element determining device which determines music score notational

elements necessary for displaying a music score for each of said measures based on

said music performance representing data (see paragraph 0005 for example); a display

size determining device which determines display sizes of said music score notational

elements to be displayed on said display area (see paragraphs 0006 and 0008 for

example); a horizontal length determining device which determines a horizontal length

of the music score to be displayed on said display area (see paragraphs 0006 and 0008

for example); a measures apportioning device which calculates, for each of said

measures based on said determined display sizes, a minimum horizontal length for

placing in the measure at least one kind of said music score notational elements without

an overlap in a horizontal direction among said music score notational elements as

determined to be displayed for each of said measures, and apportions said measures

for each of said staff tiers based on said calculated minimum horizontal length of each

of said measures and said determined horizontal length of the music score to be

displayed such that the music score notational elements of each of said measures shall

be placed on the apportioned staff tier in a length of said minimum horizontal length or

more, measure by measure (see paragraphs 0004 and 0006 for example); and a music

score display data output device which outputs music score display data for displaying

said music score notational elements on said staff tiers according to the apportionment

of the measures by said measures apportioning device (see paragraph 0005 for

example).

Re claim 2, Matsumoto discloses an apparatus, wherein said music score

notational elements are of at least one kind selected from clefs, bar lines, key

signatures, time signatures, notes, rests, dynamic marks, repeat signs and staff lines

(see paragraph 0006 for example).

Re claim 3, Matsumoto discloses an apparatus, wherein said display size

determining device includes controls to be operated by a user for determining the

display sizes of said music score notational elements (see paragraph 0008 for

example).

Re claim 4, Matsumoto discloses an apparatus, wherein the music score is to

be displayed in tiers of musical staves on a page or pages, each page having said

music score display area (see paragraph 009 for example), said apparatus further comprising: a vertical length determining device which determines a vertical length of the music score to be displayed on said display area (see paragraph 0006 and 0008 for example); and a staff tiers apportioning device which calculates, for each of said staff tiers based on said determined display sizes, a maximum vertical length for placing all the music score notational elements in the measures apportioned for the staff tier by said measures apportioning device, and apportions said staff tiers for said page based on said calculated maximum vertical length of each of said staff tiers and said determined vertical length of the music score to be displayed such that a number of staff tiers shall be placed within said music score display area on the page (see paragraph 0006 and 0008 for example); wherein said music score display data output device outputs music score display data for displaying the music score for the page by placing the music score notational elements in the staff tiers for which the measures are apportioned by said measures apportioning device according to the apportionment of the staff tiers as apportioned by said staff tiers apportioning device (see paragraph 0005 for example).

Re claim 5, Matsumoto discloses an apparatus, wherein said staff tiers apportioning device calculates said maximum vertical length by calculating the highest position of an notational element and the lowest position of an notational element among said notational elements to be placed in each of said staff tiers (see paragraph 0006 and 0008 for example).

Re claim 6, Matsumoto discloses an apparatus for arranging music score

displaying data for displaying a music score having measures of music progression on a

display device, said apparatus comprising: a music performance representing data input

device which inputs data representing a music performance in a plurality of measures of

music progression (see paragraph 0005 for example); a display size determining device

which determines display sizes of music score notational elements with respect to the

measures to be displayed on said display device based on said music performance

representing data (see paragraph 0006 and 0008 for example); a measures length

calculating device which calculates, for each of said measures based on said

determined display sizes of the music score notational elements, a horizontal length of

the measure for placing in the measure at least one kind of said music score notational

elements without an overlap in a horizontal direction among said music score notational

elements (see paragraph 0006 and 0008 for example); and a music score display data

output device which outputs music score display data for displaying said music score

notational elements in said measures according to said determined display sizes of the

music score notational elements and said calculated horizontal lengths of the measures

(0005 for example).

Re claim 7, Matsumoto discloses an apparatus, further comprising: a display

adjusting device which adjusts said music score display data such that a music score is

displayed in a plurality of staff tiers on said display device on a page-by-page basis,

apportions the measures among said staff tiers such that a single measure shall not

extend over two staff tiers, and apportions said music score notational elements to be

placed in a uniform distribution through the staff tier with respect to the music

progression (see paragraph 0009 and figure 5 for example).

Re claim 8, Matsumoto discloses an apparatus, wherein said music score

notational elements are of at least one kind selected from clefs, bar lines, key

signatures, time signatures, notes, rests, dynamic marks, repeat signs and staff lines

(see paragraph 0006 for example).

Re claim 9, Matsumoto discloses a computer program containing program

instructions executable by a computer for arranging music score displaying data for

displaying a music score on a given music score display area in one or more staff tiers,

each tier containing one or more measures of variable lengths as justified for the display

area, and causing said computer to execute:

a music performance representing data input step of inputting data representing

a music performance in a plurality of measures of music progression (see paragraph

0005 for example);

a musical score notational element determining step of determining music score

notational elements necessary for displaying a music score for each of said measures

based on said music performance representing data (see paragraph 0005 for example);

a display size determining step of determining display sizes of said music score

notational elements to be displayed on said display area (see paragraph 0006 and 0008

for example);

a horizontal length determining step of determining a horizontal length of the music score to be displayed on said display area (see paragraph 0006 and 0008 for example);

a measures apportioning step of calculating, for each of said measures based on said determined display sizes, a minimum horizontal length for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements as determined to be displayed for each of said measures, and apportioning said measures for each of said staff tiers based on said calculated minimum horizontal length of each of said measures and said determined horizontal length of the music score to be displayed such that the music score notational elements of each of said measures shall be placed on the apportioned staff tier in a length of said minimum horizontal length or more, measure by measure (see paragraph 0006 and 0008 for example); and

a music score display data output step of outputting music score display data for displaying said music score notational elements on said staff tiers according to the apportionment of the measures by said measures apportioning step (see paragraph 0005 for example).

Re claim 10, Matsumoto discloses a computer program containing program instructions executable by a computer for arranging music score displaying data for displaying a music score having measures of music progression on a display device, and causing said computer to execute:

a music performance representing data input step of inputting data representing a music performance in a plurality of measures of music progression (see paragraph 0005 for example);

a display size determining step of determining display sizes of music score notational elements with respect to the measures to be displayed on said display device based on said music performance representing data (see paragraph 0005 for example);

a measures length calculating step of calculating, for each of said measures based on said determined display sizes of the music score notational elements, a horizontal length of the measure for placing in the measure at least one kind of said music score notational elements without an overlap in a horizontal direction among said music score notational elements (see paragraph 0006 and 0008 for example); and

a music score display data output step of outputting music score display data for displaying said music score notational elements in said measures according to said determined display sizes of the music score notational elements and said calculated horizontal lengths of the measures (see paragraph 0005 for example).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M- F at 8:30AM-5PM.
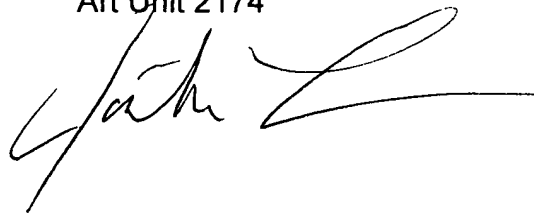
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on 571-272-2100 ext. 74. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Jinhee J Lee
Primary Examiner
Art Unit 2174

jjl